

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPAL623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 APR 02 CAS Registry Number Crossover Limits Increased to  
500,000 in Key STN Databases  
NEWS 3 APR 02 PATDPAFULL: Application and priority number formats  
enhanced  
NEWS 4 APR 02 DWPI: New display format ALLSTR available  
NEWS 5 APR 02 New Thesaurus Added to Derwent Databases for Smooth  
Sailing through U.S. Patent Codes  
NEWS 6 APR 02 EMBASE Adds Unique Records from MEDLINE, Expanding  
Coverage back to 1948  
NEWS 7 APR 07 CA/CAPLUS CLASS Display Streamlined with Removal of  
Pre-IPC 8 Data Fields  
NEWS 8 APR 07 50,000 World Traditional Medicine (WTM) Patents Now  
Available in CAPLUS  
NEWS 9 APR 07 MEDLINE Coverage Is Extended Back to 1947  
NEWS 10 JUN 16 WPI First View (File WPIFV) will no longer be  
available after July 30, 2010  
NEWS 11 JUN 18 DWPI: New coverage - French Granted Patents  
NEWS 12 JUN 18 CAS and FIZ Karlsruhe announce plans for a new  
STN platform  
NEWS 13 JUN 18 IPC codes have been added to the INSPEC backfile  
(1969-2009)  
NEWS 14 JUN 21 Removal of Pre-IPC 8 data fields streamline displays  
in CA/CAPLUS, CASREACT, and MARPAT  
NEWS 15 JUN 21 Access an additional 1.8 million records exclusively  
enhanced with 1.9 million CAS Registry Numbers --  
EMBASE Classic on STN  
NEWS 16 JUN 28 Introducing "CAS Chemistry Research Report": 40 Years  
of Biofuel Research Reveal China Now Atop U.S. in  
Patenting and Commercialization of Bioethanol  
NEWS 17 JUN 29 Enhanced Batch Search Options in DGENE, USGENE,  
and PCTGEN  
NEWS 18 JUL 19 Enhancement of citation information in INPADOC  
databases provides new, more efficient competitor  
analyses

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,  
AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that  
specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 07:21:25 ON 21 JUL 2010

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 07:21:40 ON 21 JUL 2010  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 JUL 2010 HIGHEST RN 1233120-12-1  
DICTIONARY FILE UPDATES: 19 JUL 2010 HIGHEST RN 1233120-12-1

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	4.41	4.63

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 07:26:51 ON 21 JUL 2010

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'REGISTRY' AT 07:29:22 ON 21 JUL 2010  
FILE 'REGISTRY' ENTERED AT 07:29:22 ON 21 JUL 2010  
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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

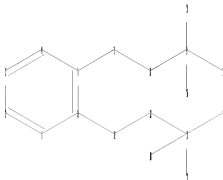
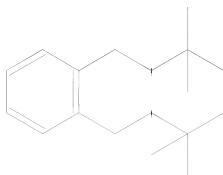
FULL ESTIMATED COST

4.41

4.63

=>

Uploading C:\Documents and Settings\PZucker\My Documents\Examination Auxillary  
files\10589971\10589971 elected ligand.str



chain nodes :

7 8 9 10 11 12 13 14 15 16 17 18

ring nodes :

1 2 3 4 5 6

chain bonds :

5-7 6-11 7-8 8-9 9-10 9-15 9-16 11-12 12-13 13-14 13-17 13-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact bonds :

5-7 6-11 7-8 8-9 9-10 9-15 9-16 11-12 12-13 13-14 13-17 13-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

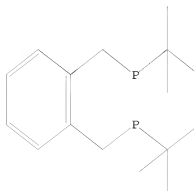
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> search l1 exact full

FULL SEARCH INITIATED 07:30:26 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 6 TO ITERATE

100.0% PROCESSED 6 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L2 0 SEA EXA FUL L1

=> search l1 sss sam

SAMPLE SEARCH INITIATED 07:31:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 11 TO 389

PROJECTED ANSWERS: 1 TO 80

L3 1 SEA SSS SAM L1

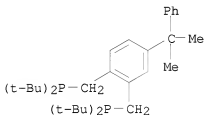
=> d scan

L3 1 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN

IN Phosphine, 1,1'-[[4-(1-methyl-1-phenylethyl)-1,2-phenylene]bis(methylene)]bis[1,1-bis(1,1-dimethylethyl)-, methanesulfonate (1:2)

MF C33 H54 P2 . 2 C H4 O3 S

CM 1



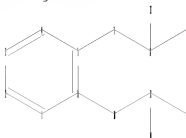
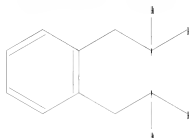
CM 2



ALL ANSWERS HAVE BEEN SCANNED

=>

Uploading C:\Documents and Settings\PZucker\My Documents\Examination Auxillary  
files\10589971\10589971 correct elected ligand.str



```
chain nodes :  
7 8 9 10 11 12 13 14  
ring nodes :  
1 2 3 4 5 6  
chain bonds :  
5-7 6-10 7-8 8-9 8-13 10-11 11-12 11-14  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6  
exact bonds :  
5-7 6-10 7-8 8-9 8-13 10-11 11-12 11-14  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 5-6
```

Match level :

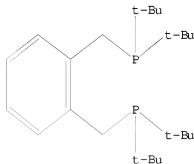
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
11:CLASS 12:CLASS 13:CLASS 14:CLASS

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> search l4 exact full

FULL SEARCH INITIATED 07:35:17 FILE 'REGISTRY'

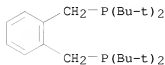
FULL SCREEN SEARCH COMPLETED - 28 TO ITERATE

100.0% PROCESSED 28 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

L5 1 SEA EXA FUL L4

=> d scan

L5 1 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN  
IN Phosphine, 1,1'-[1,2-phenylenebis(methylene)]bis[1,1-bis(1,1-dimethylethyl)-  
MF C24 H44 P2

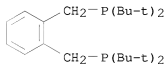


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=> d 15

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 121954-50-5 REGISTRY  
ED Entered STN: 04 Aug 1989  
CN Phosphine, 1,1'-[1,2-phenylenebis(methylene)]bis[1,1-bis(1,1-dimethylethyl)- (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Phosphine, [1,2-phenylenebis(methylene)]bis[bis(1,1-dimethylethyl)- (9CI)  
OTHER NAMES:  
CN 1,2-Bis[(di-tert-butylphosphino)methyl]benzene  
CN 1,3-Bis[(di-tert-butylphosphino)methyl]benzene  
MF C24 H44 P2  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

54 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
54 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE TOTAL  
ENTRY SESSION

FULL ESTIMATED COST

140.90

141.12

FILE 'CAPLUS' ENTERED AT 07:35:53 ON 21 JUL 2010  
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FILE COVERS 1907 - 21 Jul 2010 VOL 153 ISS 4  
FILE LAST UPDATED: 20 Jul 2010 (20100720/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 15

L6 54 L5

=> ethylene or ethene

631827 ETHYLENE

3527 ETHYLENES

633381 ETHYLENE

(ETHYLENE OR ETHYLENES)

40688 ETHENE

1286 ETHENES

41272 ETHENE

(ETHENE OR ETHENES)

L7 658256 ETHYLENE OR ETHENE

=> 16 and 17

L8 14 L6 AND L7

=> d 18 1-14 ti

L8 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI Method for producing mono-hydroxyfunctionalized dialkylphosphinic acids and esters and salts thereof and use thereof

L8 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI Palladium Complexes of the Heterodiphosphine o-C6H4(CH2PtBu2)(CH2PPh2) Are Highly Selective and Robust Catalysts for the Hydromethoxycarbonylation of Ethene

L8 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI A process for the carbonylation of an ethylenically unsaturated compound and a catalyst system  
 L8 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Preparation of Group VIII metal phosphine complexes for use in the carbonylation of ethylenically unsaturated compounds  
 L8 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Improved carbonylation catalyst system  
 L8 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Catalyst system for carbonylating ethylenically unsaturated compounds  
 L8 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Olefin polymerization in the presence of a dehydrogenation catalyst  
 L8 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Process for the hydroformylation of ethylenically unsaturated compounds using chlorine-containing catalyst and/or solvent  
 L8 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Manufacture of dialkyl ketones by reductive carbonylation of  $\alpha$ -olefins  
 L8 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Characterization and Dynamics of  $[\text{Pd}(\text{L-L})\text{H}(\text{solvent})]^+$ ,  $[\text{Pd}(\text{L-L})(\text{CH}_2\text{CH}_3)]^+$ , and  $[\text{Pd}(\text{L-L})(\text{C}(\text{O})\text{Et})(\text{THF})]^+$  (L-L = 1,2-(CH<sub>2</sub>PBut<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>): Key Intermediates in the Catalytic Methoxycarbonylation of Ethene to Methylpropanoate  
 L8 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Process and Palladium-bidentate phosphine ligand catalysts for the carbonylation of ethylene into propionic acid and its esters  
 L8 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Carbonylation of ethylene and stable catalyst system containing bidentate phosphine compounds for  
 L8 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Synthesis of coordinatively unsaturated diphosphine nickel(II) and palladium(II)  $\beta$ -agostic ethyl cations: x-ray crystal structure of  $[\text{Ni}(\text{tert-Bu}_2\text{P}(\text{CH}_2)_2\text{PBu-tert}_2)(\text{C}_2\text{H}_5)]^+[\text{BF}_4]^-$   
 L8 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Control of intramolecular  $\beta$ -hydrogen migration in coordinatively unsaturated (diphosphine)platinum ethyl cations  
 => d 18 10-14 ti fbib abs  
 L8 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Characterization and Dynamics of  $[\text{Pd}(\text{L-L})\text{H}(\text{solvent})]^+$ ,  $[\text{Pd}(\text{L-L})(\text{CH}_2\text{CH}_3)]^+$ , and  $[\text{Pd}(\text{L-L})(\text{C}(\text{O})\text{Et})(\text{THF})]^+$  (L-L = 1,2-(CH<sub>2</sub>PBut<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>): Key Intermediates in the Catalytic Methoxycarbonylation of Ethene to Methylpropanoate  
 AN 2002:227362 CAPLUS  
 DN 136:401868  
 TI Characterization and Dynamics of  $[\text{Pd}(\text{L-L})\text{H}(\text{solvent})]^+$ ,  $[\text{Pd}(\text{L-L})(\text{CH}_2\text{CH}_3)]^+$ , and  $[\text{Pd}(\text{L-L})(\text{C}(\text{O})\text{Et})(\text{THF})]^+$  (L-L = 1,2-(CH<sub>2</sub>PBut<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>): Key Intermediates in the Catalytic Methoxycarbonylation of Ethene to Methylpropanoate  
 AU Clegg, William; Eastham, Graham R.; Elsegood, Mark R. J.; Heaton, Brian



T.; Iggo, Jonathan A.; Tooze, Robert P.; Whyman, Robin; Zacchini, Stefano  
 CS Chemistry Department, University of Newcastle, Newcastle-upon-Tyne, NE1  
 7RU, UK  
 SO Organometallics (2002), 21(9), 1832-1840  
 CODEN: ORGN7; ISSN: 0276-7333  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 136:401868  
 AB A detailed spectroscopic study has allowed the solution structure and dynamic  
 properties of all the intermediates in the Pd-catalyzed  
 methoxycarbonylation of ethene to be established.  
 [Pd(L-L)H(solvent)]<sup>+</sup> (L-L = 1,2-(tBu2PCH2)2C6H4; solv = MeOH, 1a; PrOH, 1b;  
 THF, 1c; EtCN, 1d) is static, and the two inequivalent P atoms do not  
 become equivalent through solvent exchange over all the temps. studied.  
 [Pd(L-L)Et]<sup>+</sup>, 2, contains a strong  $\beta$ -agostic C-H interaction which is  
 remarkably stable and is not displaced even in strongly coordinating  
 solvents such as EtCN.  $\alpha$  and  $\beta$  of the Et group in 2 become  
 equivalent via a stereospecific interchange involving [Pd(L-L)H( $\eta^2$ -C2H4)]<sup>+</sup>  
 without making the two P atoms equivalent; at higher temps. these two  
 inequivalent P atoms do become equivalent probably via a T-shaped  
 intermediate. For [Pd(L-L)(C(O)Et)(solvent)]<sup>+</sup>, 6, there is no  $\beta$ -agostic  
 C-H interaction and multiple <sup>13</sup>C-labeling of the C(O)Et group shows that  
 the inequivalent P atoms become equivalent via movement of the intact C(O)Et  
 group. The crystal structure of the related complex [Pd(L-L)(C(O)Et)Cl]  
 cocrystd. with dibenzylideneacetone was determined  
 OSC.G 45 THERE ARE 45 CAPLUS RECORDS THAT CITE THIS RECORD (46 CITINGS)  
 RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2010 ACS ON STN  
 TI Process and Palladium-bidentate phosphine ligand catalysts for the  
 carbonylation of ethylene into propionic acid and its esters  
 AN 1998:635736 CAPLUS  
 DN 129:232317  
 OREF 129:47239a, 47242a  
 TI Process and Palladium-bidentate phosphine ligand catalysts for the  
 carbonylation of ethylene into propionic acid and its esters  
 IN Pearson, Jean Margaret; Hadden, Raymond Anthony  
 PA Imperial Chemical Industries PLC, UK  
 SO PCT Int. Appl., 17 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9841495	A1	19980924	WO 1998-GB629	19980227
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	CA 2282515	A1	19980924	GB 1997-5699	A 19970319
	CA 2282515	C	20070501	CA 1998-2282515	19980227
				GB 1997-5699	A 19970319
				WO 1998-GB629	19980227
	AU 9866286	A	19981012	AU 1998-66286	19980227

AU 737772	B2	20010830	GB 1997-5699	A	19970319
			WO 1998-GB629	W	19980227
EP 970038	A1	20000112	EP 1998-908202		19980227
EP 970038	B1	20020410			
EP 970038	B2	20050907			
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BR 9808354	A	20000523	BR 1998-8354		19980227
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HU 2000000772	A2	20000728	HU 2000-772		19980227
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HU 226818	B1	20091130			
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PT 970038	E	20020731	PT 1998-908202		19980227
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ES 2172114	T3	20020916	ES 1998-908202		19980227
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CN 1245371	C	20060315	CN 1998-803440		19980227
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			GB 1997-5699	A	19970319
ZA 9801982	A	19980921	ZA 1998-1982		19980309
			GB 1997-5699	A	19970319
US 6284919	B1	20010904	US 1999-396637		19990915
			GB 1997-5699	A	19970319
			WO 1998-GB629	A1	19980227
US 20010051745	A1	20011213	US 2001-885187		20010621
US 6489506	B2	20021203			
			GB 1997-5699	A	19970319
			US 1999-396637	A1	19990915

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 129:232317

AB Ethylene is carbonylated into propanoic acid and its esters (e.g., Me propionate) in high yield and selectivity by its liquid-phase carbonylation, in the presence of a catalyst system comprising Pd or a Pd compound, a bidentate phosphine ligand [e.g., 1,2-bis(di-tert-butylphosphinomethyl)benzene], and a source of anions (e.g., methanesulfonic acid), and in the presence of a source of hydroxyl groups (e.g., methanol). The carbonylation is carried out using a molar ratio of ethylene to carbon monoxide greater than 1:1, and preferably greater than 5:1; these higher ratios of ethylene to carbon monoxide result in increased catalyst turnover nos.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI Carbonylation of ethylene and stable catalyst system containing

bidentate phosphine compounds for  
 AN 1996:527331 CAPLUS  
 DN 125:145592  
 OREF 125:27211a, 27214a  
 TI Carbonylation of ethylene and stable catalyst system containing  
 bidentate phosphine compounds for  
 IN Tooze, Robert Paul; Eastham, Graham Ronald; Whiston, Keith; Wang, Xiao Lan  
 PA Imperial Chemical Industries Plc, UK  
 SO PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9619434	A1	19960627	WO 1995-GB3021	19951222
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2207672	A1	19960627	GB 1994-25911	A 19941222
	CA 2207672	C	20061010	CA 1995-2207672	19951222
				GB 1994-25911	A 19941222
	AU 9643095	A	19960710	WO 1995-GB3021	W 19951222
	AU 701935	B2	19990211	AU 1996-43095	19951222
				GB 1994-25911	A 19941222
	EP 799180	A1	19971008	WO 1995-GB3021	W 19951222
	EP 799180	B1	19990630	EP 1995-941792	19951222
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
				GB 1994-25911	A 19941222
	BR 9510249	A	19971104	WO 1995-GB3021	W 19951222
				BR 1995-10249	19951222
				GB 1994-25911	A 19941222
	CN 1171098	A	19980121	WO 1995-GB3021	W 19951222
	CN 1073546	C	20011024	CN 1995-197050	19951222
				GB 1994-25911	A 19941222
	HU 77016	A2	19980302	HU 1997-2202	19951222
	HU 215407	B	19981228		
				GB 1994-25911	A 19941222
	JP 10511034	T	19981027	JP 1995-519611	19951222
				GB 1994-25911	A 19941222
				WO 1995-GB3021	W 19951222
	AT 181725	T	19990715	AT 1995-941792	19951222
				GB 1994-25911	A 19941222
	ES 2133837	T3	19990916	ES 1995-941792	19951222
				GB 1994-25911	A 19941222
	NZ 297842	A	20000128	NZ 1995-297842	19951222
				GB 1994-25911	19941222
				WO 1995-GB3021	19951222
	CZ 288904	B6	20010912	CZ 1997-1932	19951222
				GB 1994-25911	A 19941222
	JP 3949716	B2	20070725	JP 1996-519611	19951222
				GB 1994-25911	A 19941222
				WO 1995-GB3021	W 19951222
	US 6348621	B1	20020219	US 1999-860159	19991013
				GB 1994-25911	A 19941222
				WO 1995-GB3021	W 19951222

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Ethylene is reacted with CO in the presence of an OH source, e.g., an alc., and a catalyst system a Group VIII metal (compound) and a bidentate phosphine compound, e.g., bis(di-tert-butylphosphino)-o-xylene (I). Use of the bidentate phosphine compds. provides remarkably stable catalysts which require little replenishment, leads to high reaction rates, minimizes impurity formation at high conversions. Thus, ethylene was carbonylated in the presence of MeOH and a catalyst system comprising palladium acetate 0.1, I 0.3, and methanesulfonic acid 0.24 mmol, with reaction rate 40,000 and selectivity 99.95 with no Pd precipitation

OSC.G 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)  
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI Synthesis of coordinatively unsaturated diphosphine nickel(II) and palladium(II)  $\beta$ -agostic ethyl cations: x-ray crystal structure of  $[\text{Ni}(\text{tert-Bu}_2\text{P}(\text{CH}_2)_2\text{PBu-tert}_2)(\text{C}_2\text{H}_5)][\text{BF}_4]$

AN 1992:59613 CAPLUS

DN 116:59613

OREF 116:10325a,10328a

TI Synthesis of coordinatively unsaturated diphosphine nickel(II) and palladium(II)  $\beta$ -agostic ethyl cations: x-ray crystal structure of  $[\text{Ni}(\text{tert-Bu}_2\text{P}(\text{CH}_2)_2\text{PBu-tert}_2)(\text{C}_2\text{H}_5)][\text{BF}_4]$

AU Conroy-Lewis, Fiona M.; Mole, Laura; Redhouse, Alan D.; Litster, Stephen A.; Spencer, John L.

CS Dep. Chem. Appl. Chem., Univ. Salford, Salford, M5 4WT, UK

SO Journal of the Chemical Society, Chemical Communications (1991), (22), 1601-3

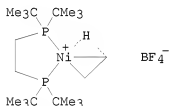
CODEN: JCCCAT; ISSN: 0022-4936

DT Journal

LA English

OS CASREACT 116:59613

GI



AB Protonation of  $[\text{M}(\text{L}_2)(\eta^2\text{-C}_2\text{H}_4)]$  ( $\text{L}_2$  = chelating diphosphine;  $\text{M} = \text{Ni}$ ,  $\text{Pd}$ ) with  $\text{HBF}_4$  affords a series of cations  $[\text{M}(\text{L}_2)(\text{C}_2\text{H}_5)]^+$  characterized as  $\beta$ -agostic Et complexes by NMR spectroscopy and x-ray structure anal. E.g., the structure of I was determined by crystallog.

OSC.G 40 THERE ARE 40 CAPLUS RECORDS THAT CITE THIS RECORD (40 CITINGS)

L8 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2010 ACS on STN

TI Control of intramolecular  $\beta$ -hydrogen migration in coordinatively unsaturated (diphosphine)platinum ethyl cations

AN 1991:43147 CAPLUS

DN 114:43147

OREF 114:7517a,7520a

TI Control of intramolecular  $\beta$ -hydrogen migration in coordinatively unsaturated (diphosphine)platinum ethyl cations

AU Mole, Laura; Spencer, John L.; Carr, Nicholas; Orpen, A. Guy

CS Dep. Chem. Appl. Chem., Univ. Salford, Salford, M5 4WT, UK

SO Organometallics (1991), 10(1), 49-52

CODEN: ORGND7; ISSN: 0276-7333

DT Journal

LA English

AB Protonation of the complexes [Pt(C2H5)2L2] or [Pt( $\eta$ 2-C2H4)L2] {L2 = o-(tert-Bu2PCH2)2C6H4 (dbpx), tert-Bu2P(CH2)3P(Bu-tert)2 (dbpp) and tert-Bu2P(CH2)2(Bu-tert)2 (dbpe)} with HBF4·OEt2 or HBF4·OMe2 affords the complexes [Pt(C2H5)(dbpx)][BF4] (I), [Pt(C2H5)(dbpp)][BF4] (II), and [PtH( $\eta$ 2-C2H4)(dbpe)][BF4] (III), resp. The new complexes were characterized by 1H, 13C and 31P variable temperature

NMR

spectroscopy and in the case of [Pt(C2H5)(dbpp)][CB11H12], which was prepared by protonation of [Pt(C2H5)2(dbpp)] with HCB11H12, by and x-ray crystallog. study. The complexes I and II exhibit a two-electron, three-center Pt-H-C agostic bond whereas III has a cis-ethene-hydride ground state structure. Thus, the size of the chelating diphosphine ligand controls the extent of  $\beta$ -hydrogen transfer from carbon to platinum. The NMR spectroscopic studies show that all three cations undergo two low energy fluxional processes (AG.dbldag.  $\leq 8 \pm 1.5$  Kcal mol<sup>-1</sup>) in soln: (a) agostic Me rotation and (b)  $\beta$ -elimination/ ethene rotation/hydride migration. A combination of these processes scrambles all five protons and both carbon atoms.

OSC.G 48 THERE ARE 48 CAPLUS RECORDS THAT CITE THIS RECORD (48 CITINGS)

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
33.58	174.70

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.25	-4.25

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 07:45:33 ON 21 JUL 2010

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LOGINID:SSSPAL623PAZ

PASSWORD:

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FILE 'CAPLUS' ENTERED AT 08:18:33 ON 21 JUL 2010  
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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
33.58	174.70

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.25	-4.25

CA SUBSCRIBER PRICE

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	33.58	174.70
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-4.25	-4.25

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 08:18:46 ON 21 JUL 2010

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'CAPLUS' AT 10:05:31 ON 21 JUL 2010  
FILE 'CAPLUS' ENTERED AT 10:05:31 ON 21 JUL 2010  
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	33.58	174.70
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-4.25	-4.25

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	34.08	175.20
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-4.25	-4.25

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 10:05:53 ON 21 JUL 2010

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America

NEWS 2 APR 02 CAS Registry Number Crossover Limits Increased to 500,000 in Key STN Databases

NEWS 3 APR 02 PATDPAFULL: Application and priority number formats enhanced

NEWS 4 APR 02 DWPI: New display format ALLSTR available

NEWS 5 APR 02 New Thesaurus Added to Derwent Databases for Smooth Sailing through U.S. Patent Codes

NEWS 6 APR 02 EMBASE Adds Unique Records from MEDLINE, Expanding Coverage back to 1948

NEWS 7 APR 07 CA/Caplus CLASS Display Streamlined with Removal of Pre-IPC 8 Data Fields

NEWS 8 APR 07 50,000 World Traditional Medicine (WTM) Patents Now Available in Caplus

NEWS 9 APR 07 MEDLINE Coverage Is Extended Back to 1947

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NEWS 11 JUN 18 DWPI: New coverage - French Granted Patents

NEWS 12 JUN 18 CAS and FIZ Karlsruhe announce plans for a new STN platform

NEWS 13 JUN 18 IPC codes have been added to the INSPEC backfile (1969-2009)

NEWS 14 JUN 21 Removal of Pre-IPC 8 data fields streamline displays in CA/Caplus, CASREACT, and MARPAT

NEWS 15 JUN 21 Access an additional 1.8 million records exclusively enhanced with 1.9 million CAS Registry Numbers -- EMBASE Classic on STN

NEWS 16 JUN 28 Introducing "CAS Chemistry Research Report": 40 Years of Biofuel Research Reveal China Now Atop U.S. in Patenting and Commercialization of Bioethanol

NEWS 17 JUN 29 Enhanced Batch Search Options in DGENE, USGENE, and PCTGEN

NEWS 18 JUL 19 Enhancement of citation information in INPADOC databases provides new, more efficient competitor analyses

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2, AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 12:17:20 ON 21 JUL 2010

=> carbonylat?

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=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

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FILE COVERS 1907 - 21 Jul 2010 VOL 153 ISS 4  
 FILE LAST UPDATED: 20 Jul 2010 (20100720/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> carbonylat?
L1      14775 CARBONYLAT?

=> bidentate(l)phosphine
      28719 BIDENTATE
      145 BIDENTATES
      28808 BIDENTATE
          (BIDENTATE OR BIDENTATES)
      78892 PHOSPHINE
      19161 PHOSPHINES
      84367 PHOSPHINE
          (PHOSPHINE OR PHOSPHINES)
L2      2049 BIDENTATE(L)PHOSPHINE

=> l1 and l2
L3      84 L1 AND L2

=> acid
      5095790 ACID
      1764479 ACIDS
L4      5643214 ACID
          (ACID OR ACIDS)
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=> l4 (l)l3
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L4 (L)L3'
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L5 41 L4 (L)L3

=> ratio(1)acid  
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371204 RATIOS  
1710600 RATIO  
(RATIO OR RATIOS)  
5095790 ACID  
1764479 ACIDS  
5643214 ACID  
(ACID OR ACIDS)  
L6 258572 RATIO(L)ACID

=> 15 and 16  
L7 5 L5 AND L6

=> d 17 1-5 ti

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Process and Palladium-bidentate phosphine ligand  
catalysts for the carbonylation of ethylene into propionic  
acid and its esters

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Process for the carbonylation polymerization of functionalized  
olefinically unsaturated compounds and polyesters and polyanhydrides  
therefrom

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Process for the carbonylation polymerization of dienes in the  
presence of dicarboxylic acids or diols as coreactants

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Process for synthesis of amidoacids using a cobalt catalyst and a  
bidentate phosphine ligand

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Polyketones

=> d 17 1-5 ti fbib abs

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Process and Palladium-bidentate phosphine ligand  
catalysts for the carbonylation of ethylene into propionic  
acid and its esters

AN 1998:635736 CAPLUS

DN 129:232317

OREF 129:47239a,47242a

TI Process and Palladium-bidentate phosphine ligand  
catalysts for the carbonylation of ethylene into propionic  
acid and its esters

IN Pearson, Jean Margaret; Hadden, Raymond Anthony

PA Imperial Chemical Industries PLC, UK

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9841495	A1	19980924	WO 1998-GB629	19980227

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2282515	A1	19980924	GB 1997-5699	A	19970319
CA 2282515	C	20070501	CA 1998-2282515		19980227
			GB 1997-5699	A	19970319
AU 9866286	A	19981012	WO 1998-GB629	W	19980227
AU 737772	B2	20010830	AU 1998-66286		19980227
			GB 1997-5699	A	19970319
EP 970038	A1	20000112	WO 1998-GB629	W	19980227
EP 970038	B1	20020410	EP 1998-908202		19980227
EP 970038	B2	20050907			
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BR 9808354	A	20000523	GB 1997-5699	A	19970319
			WO 1998-GB629	W	19980227
			BR 1998-8354		19980227
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HU 2000000772	A2	20000728	WO 1998-GB629	W	19980227
HU 2000000772	A3	20001128	HU 2000-772		19980227
HU 226818	B1	20091130			
			GB 1997-5699	A	19970319
JP 2001517218	T	20011002	WO 1998-GB629	W	19980227
JP 4143133	B2	20080903	JP 1998-540218		19980227
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AT 215928	T	20020415	WO 1998-GB629	W	19980227
			AT 1998-908202		19980227
			GB 1997-5699	A	19970319
PT 970038	E	20020731	WO 1998-GB629	W	19980227
			PT 1998-908202		19980227
ES 2172114	T3	20020916	GB 1997-5699	A	19970319
			ES 1998-908202		19980227
CZ 295078	B6	20050518	GB 1997-5699	A	19970319
			CZ 1999-3269		19980227
CN 1245371	C	20060315	GB 1997-5699	A	19970319
			CN 1998-803440		19980227
TW 552257	B	20030911	GB 1997-5699	A	19970319
			TW 1998-87103149		19980304
ZA 9801982	A	19980921	GB 1997-5699	A	19970319
			ZA 1998-1982		19980309
US 6284919	B1	20010904	GB 1997-5699	A	19970319
			US 1999-396637		19990915
			GB 1997-5699	A	19970319
US 20010051745	A1	20011213	WO 1998-GB629	A1	19980227
US 6489506	B2	20021203	US 2001-885187		20010621
			GB 1997-5699	A	19970319
			US 1999-396637	A1	19990915

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OS MARPAT 129:232317

AB Ethylene is carbonylated into propanoic acid and its esters (e.g., Me propionate) in high yield and selectivity by its

liquid-phase carbonylation, in the presence of a catalyst system comprising Pd or a Pd compound, a bidentate phosphine ligand [e.g., 1,2-bis(di-tert-butylphosphinomethyl)benzene], and a source of anions (e.g., methanesulfonic acid), and in the presence of a source of hydroxyl groups (e.g., methanol). The carbonylation is carried out using a molar ratio of ethylene to carbon monoxide greater than 1:1, and preferably greater than 5:1; these higher ratios of ethylene to carbon monoxide result in increased catalyst turnover nos.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)  
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Process for the carbonylation polymerization of functionalized olefinically unsaturated compounds and polyesters and polyanhydrides therefrom  
 AN 1990:632315 CAPLUS  
 DN 113:232315  
 OREF 113:39215a,39218a

TI Process for the carbonylation polymerization of functionalized olefinically unsaturated compounds and polyesters and polyanhydrides therefrom  
 IN Drent, Eit; Breed, Anthonius Johannes Maria  
 PA Shell Internationale Research Maatschappij B. V., Neth.  
 SO Brit. UK Pat. Appl., 19 pp.  
 CODEN: BAXXDU  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2226822	A	19900711	GB 1988-30334	19881229
US 5025092	A	19910618	US 1989-451920	19891218
			GB 1988-30334	A 19881229
US 5128438	A	19920707	US 1991-680447	19910404
			GB 1988-30334	A 19881229
			US 1989-451920	A3 19891218

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 113:232315

AB Polyesters and polyanhydrides are prepared by reaction of (1) (un)substituted alkenols (OH on >4 C-atom from the nearest olefinic C-atom) or (2) (un)substituted alkenoic acids (CO<sub>2</sub>H on >3 C-atom remote from an olefinic C-atom) with CO in absence of H<sub>2</sub>O and in presence of a catalyst prepared by combining (a) a Pd(II) compound, (b) a monodentate organic phosphine and/or arsine and/or stibine optionally mixed with a bidentate phosphine, arsine, or stibine and (c) a protic acid, having pK<sub>a</sub> <2 (measured at 18° in aqueous solution), in which the molar ratio of (b)/g-Pd is ≥10, the molar ratio of (b)/(c) is >1, and the temperature is <140°. Thus, a stirred autoclave was charged with 50 mL diglyme, 20 mmol 10-undecenol, 0.4 mmol Pd(OAc)<sub>2</sub>, 8 mmol Ph<sub>3</sub>P, 4 mmol p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, flushed with CO, pressurized with CO to partial pressure of 40 bar, and heated at 125° for 5 h. Conversion to polyester (number-average mol. weight 1700) was 98% with ratio of linear to α-branched links 7.3:1.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Process for the carbonylation polymerization of dienes in the presence of dicarboxylic acids or diols as coreactants  
 AN 1990:632314 CAPLUS  
 DN 113:232314

OREF 113:39215a,39218a

TI Process for the carbonylation polymerization of dienes in the presence of dicarboxylic acids or diols as coreactants

IN Drent, Eit; Breed, Anthonius Johannes Maria

PA Shell Internationale Research Maatschappij B. V., Neth.

SO Brit. UK Pat. Appl., 19 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	GB 2226821	A	19900711	GB 1988-30333	19881229
	US 5049650	A	19910917	US 1989-451918	19891218
				GB 1988-30333	A 19881229
	US 5116936	A	19920526	US 1991-704546	19910523
				GB 1988-30333	A 19881229
				US 1989-451918	A3 19891218

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 113:232314

AB Polyesters or polyanhydrides are prepared by reacting nonconjugated dienes with CO and diols or dicarboxylic acids in absence of H<sub>2</sub>O and in presence of a catalyst of (a) a Pd(II) compound; (b) a monodentate organic phosphine and/or amine and/or stibine optionally mixed with a bidentate phosphine, amine, or stibine; and (c)  $\leq 1$  mol protic acid having pK<sub>a</sub> < 2 (determined in aqueous solution at 18°) per mol of (b). Thus, charging an autoclave with 50 mL PhMe and 1,10-undecadiene 55, 1,4-butanediol 55, Pd(II) acetate 0.4, Ph3P 8, and p-MeC6H4SO3H 8 mmol, flushing with CO to 40 bar partial pressure, heating at 125° for 0.5 h, cooling to ambient temperature and venting gave complete conversion of 1,10-undecadiene to polyester (number-average mol. weight 6200; ratio of linear to  $\alpha$ -branched links 10.5:1).

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN

TI Process for synthesis of amidoacids using a cobalt catalyst and a bidentate phosphine ligand

AN 1989:154881 CAPLUS

DN 110:154881

OREF 110:25635a,25638a

TI Process for synthesis of amidoacids using a cobalt catalyst and a bidentate phosphine ligand

IN Lin, Jiang Jen

PA Texaco Development Corp., USA

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 263624	A2	19880413	EP 1987-308490	19870925
	EP 263624	A3	19890419		
	EP 263624	B1	19921209		
				US 1986-916770	A 19861008
	US 4892687	A	19900109	US 1986-916770	19861008
	CA 1311244	C	19921208	CA 1987-545949	19870902
				US 1986-916770	A 19861008
	JP 63101354	A	19880506	JP 1987-252638	19871008
				US 1986-916770	A 19861008

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS CASREACT 110:154881; MARPAT 110:154881

AB A process for producing a N-acetyl- $\delta$ -amino acids RCH(CO<sub>2</sub>H)NHAc (I; R = alkyl) or RCH(NAc)<sub>2</sub> comprises reacting an  $\alpha$ -olefin, an internal olefin, or allyl acetate with AcNH<sub>2</sub>, CO, and H in the presence of a Co-containing compound promoted by a bidentate phosphine ligand Ph<sub>2</sub>P(CH<sub>2</sub>)<sub>n</sub>PPh<sub>2</sub> (n = 2,3,6) in a solvent at a pressure of at least 3.5 MPa (500 psi) and a temperature at least 50°. The process proceeds via olefin hydroformylation and amidocarbonylation. The above catalyst system provides advantages over the use of Co compds. alone such as improved yield of I, increased reaction rate, greater stability, and higher catalyst recovery. I are useful as surfactants and lubricants. The amino acid products of allyl acetate, i.e. AcO(CH<sub>2</sub>)<sub>3</sub>CH(CO<sub>2</sub>H)NHAc and AcOCH<sub>2</sub>CHMeCH(CO<sub>2</sub>H)NHAc, are useful in polyamide-ester synthesis. Thus, Co<sub>2</sub>(CO)<sub>8</sub>, Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>, 1-tetradecene (II), AcNH<sub>2</sub> and p-dioxane were placed in autoclave with stirring. The system was purged with a mixture of CO/H (1:1 molar ratio) and pressured to 100 psi. At 130°, the pressure was raised to 800 psi and maintained at this pressure for 4 h by incremental addition of CO/H mixture to give C<sub>14</sub>H<sub>29</sub>CH(CO<sub>2</sub>H)NHAc at ca. 85% selectivity over C<sub>14</sub>H<sub>29</sub>CH(NHAc)<sub>2</sub> based on converted II.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2010 ACS on SIN

TI Polyketones

AN 1986:498172 CAPLUS

DN 105:98172

OREF 105:15890h,15891a

TI Polyketones

PA Shell Internationale Research Maatschappij B. V., Neth.

SO Neth. Appl., 7 pp.

CODEN: NAXXAN

DT Patent

LA Dutch

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 8403035	A	19860501	NL 1984-3035	19841005
	EP 181014	A1	19860514	EP 1985-201434	19850910
	EP 181014	B1	19881130		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL				
	AT 38996	T	19881215	NL 1984-3035	A 19841005
				AT 1985-201434	19850910
				NL 1984-3035	A 19841005
				EP 1985-201434	A 19850910
	CA 1261997	A1	19890926	CA 1985-490586	19850912
				NL 1984-3035	A 19841005
	US 4818810	A	19890404	US 1985-782787	19851002
				NL 1984-3035	A 19841005
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	JP 06013608	B	19940223		
				NL 1984-3035	A 19841005
	ZA 8507628	A	19860528	ZA 1985-7628	19851003
				NL 1984-3035	A 19841005
	BR 8504887	A	19860722	BR 1985-4887	19851003
				NL 1984-3035	A 19841005

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Polyketones are manufactured by combined carbonylation-polymerization of CO compound with an olefinically unsatd. compound in the presence of a Group 8-10(VIII) catalyst (preferable Pd, Co, or Ni) with a bidentate ligand of formula

RR1M(CR4R5)MR2R3 (I; M = P, As, or Sb; R, R1, R2, R3 are hydrocarbyl; R4 and R5 are H or non-sterically hindering hydrocarbyl; and  $n \geq 2$ ), and a carboxylate anion of an acid with  $pK_a < 2$  (especially  $CF_3CO_2H$ ). I is present at 0.1-10:1 (mol. ratio) with the Group 8-10 metal. The olefinically unsatd. compds. include C2-30 (preferably C2-12) alkenes or cycloalkenes and is most preferable C2H4; other compds. include styrene,  $\alpha$ -methylstyrene, (meth)acrylic acid and their esters, and nonconjugated dienes. Homogeneous catalysts are preferred. The product has the general formula  $[C(:O)Am]_n$  in which A is derived from the monomer, m is a small integer (e.g., 1-6), and n is  $>10$ . Thus, C2H4 was polymerized with CO (1:1 at 20 bar each) at 90° in the presence of 50 mL MeOH, Pd(OAc)2 0.1, 1,3-bis(diphenylphosphine)propane 0.15, and  $CF_3CO_2H$  2 mmol., resulting in 2000 g polymer produced per g Pd per h.

OSC.G 89 THERE ARE 89 CAPLUS RECORDS THAT CITE THIS RECORD (93 CITINGS)

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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
46.31	46.53

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.25	-4.25

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